

ImpulseRadar Raptor-45

ANTENNA	
Technology	ImpulseRadar real-time sampling
Antenna type	Raptor
Centre frequency	450 MHz
Signal to noise ratio (SNR)	>100 dB
Significant/useful number of bits	>16 bit
Scans/second	>800
Survey speed	>130 km/h @ 5 cm point interval
Data acquisition rate	160 MHz
Time window	166 ns (18-channels)
Bandwidth	>120% (fractional, -10 dB)
Acquisition mode	Wheel, time or manual
Positioning	Wheel encoder, external GPS and Total-station
GPS support	Integrated support for GPS (int./ext.), NMEA 0183 protocol
Data time-tagging	To 1ms of \GPS-time
Power supply	12 V Li-Ion rechargeable battery, or ext. 12 V DC source
Power consumption	0.5 A per channel
Operating time	10 hours (8-channel with 50 Ah battery)
Dimensions	230 x 165 x 160 mm (Antenna only)
Weight	1.85 kg (Antenna only)
Operating temperature	-20° to +50°C
Environmental	IP65
Regulatory certification	FCC, IC and CE
USER INTERFACE	Laptop PC (min. requirements)
Display	10" backlit, sun-readable
Operating system	Windows 10 or later
Processor	>1.8 GHz, 64-bit (x64)

Memory	>8 GB RAM (64-bit)	
Storage	>20 GB (64-bit)	
Graphics	DirectX 9 graphics device with > WDDM 1.0 driver	
Communications interface	Ethernet 1 Gb	
Recommendation	<i>Panasonic Tough Book FZ G2 (or equivalent)</i>	
CARRIER SOLUTIONS	Cart (up to 8-channels)	Vehicle (up to 18-channels)
Dimensions (when in use)		180 x 83 x 57 cm
Dimensions in-folded		
4-wheel solution	92 x 102 x 45 cm	
3-wheel solution	92 x 90 x 45 cm	
Scan width (swath)	67.5 cm	1.512 m
Weight	56 kg	91 kg
SOFTWARE		
Talon-2 3D Data Acquisition software	• Quick and easy configuration and start-up • Positioning configuration and device sync monitoring • Visualization of radargram for each channel • Data merge, storage and export	
Condor 3D GPR Processing & Interpretation Software	• OspreyView (application of a novel method of visualizing 3D-GPR data) • Effective workflows • Efficient sub-surface imaging	

ImpulseRadar products are under continuous development and we reserve the right to change specifications at any time and without prior notice. You may verify product specifications at any time by contacting our headquarters using the details listed below.